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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of Peter Emig et al.

GAU 1624
Examiner K. Habte

Serial No. 09/910,141

Filed on July 20, 2001

For: NOVEL HETEROARYL DERIVATIVES, etc.

Attorney's Docket 0691-070

Commissioner of Patents
Washington DC 20231

Sir:

RESPONSE

As long as October 9, 2002 a petition was filed for overruling the examiner who has made a restriction requirement final, while ignoring the traverse that was filed and the grounds for that traverse. Since as late as today no decision on the petition has been received, to avoid having the applicant incur additional official fees for a time extension, this response is being filed without a decision on the petition.

For the foregoing reason, the following amendment of claim 1 does not take into account the as yet undecided restriction requirement. Therefore, please amend claim 1 as follows:

-- 1. (amended) Quinoline derivatives according to the formula 1

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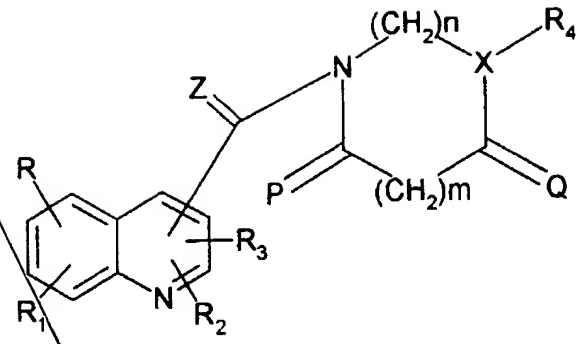


formula 1

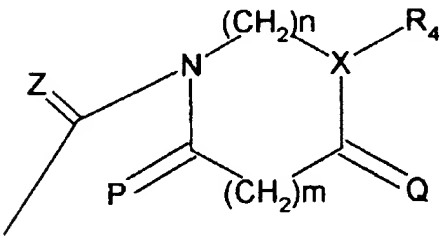
in which

R, R_1, R_2, R_3 can be attached to any of the quinoline carbon atoms C_2 to C_8, are identical or different and independently of one another denote hydrogen, straight-chain or branched (C_1-C_8)-alkyl, (C_3-C_7)-cycloalkyl, straight-chain or branched (C_1-C_8)-alkylcarbonyl, straight-chain or branched (C_1-C_8)-alkoxy, halogen, aryl-(C_1-C_8)-alkoxy, nitro, amino, mono-(C_1-C_4)-alkylamino, di-(C_1-C_4)-alkylamino, (C_1-C_8)-alkoxycarbonylamino, (C_1-C_6)-alkoxycarbonylamino-(C_1-C_8)-alkyl, cyano, straight-chain or branched cyano-(C_1-C_6)-alkyl, carboxyl, (C_1-C_8)-alkoxycarbonyl, (C_1-C_4)-alkyl which is substituted by one or more fluorine atoms, carboxy-(C_1-C_8)-alkyl or (C_1-C_8)-alkoxycarbonyl-(C_1-C_6)-alkyl, (C_2-C_6)-alkenyl, (C_2-C_6)-alkynyl, straight-chain

or branched cyano-(C_1-C_6)-alkyl, aryl, where the aryl radical can be unsubstituted or mono- or polysubstituted by identical or different substituents from the group consisting of halogen, straight-chain or branched (C_1-C_8)-alkyl, (C_3-C_7)-cycloalkyl, carboxyl, straight-chain or branched (C_1-C_8)-alkoxycarbonyl, by trifluoromethyl, hydroxyl, straight-chain or branched (C_1-C_8)-alkoxy, benzyloxy, nitro, amino, mono-(C_1-C_4)-alkylamino, di-(C_1-C_4)-alkylamino, cyano, straight-chain or branched cyano-(C_1-C_6)-alkyl, where additionally R and R_1 or R_2 and R_3 can form a fused aromatic 6-membered ring with the quinoline ring forming an acridine ring which for its part can be substituted at any C atom ring position by the radicals R, R_1, R_2 and R_3 having the meanings mentioned above;

P and Q are each 2 hydrogen atoms,

Z is oxygen or sulfur, where the radical



substituted on the quinoline heterocycle can be attached to C atoms C_2-C_8 of the

quinoline ring skeleton;

X is nitrogen or C-R_5, where R_5 represents hydrogen or (C_1-C_6)-alkyl;

n, m independently of one another is an integer between 0-3, with the proviso that in the case n = 0, X is a CR_5R_6 group where R_5 and R_6 independently of one another represent hydrogen or (C_1-C_6)-alkyl and that the nitrogen atom adjacent to the C=Z group is substituted by a hydrogen atom or a (C-C_6)-alkyl group;

R_4 is a straight-chain or branched (C_1-C_{20})-alkyl radical which can be saturated or unsaturated, with one to three double and/or triple bonds, and which can be unsubstituted or can optionally be substituted at the same or different C atoms by one, two or more aryl, heteroaryl, halogen, cyano, (C_1-C_6)-alkoxycarbonylamino, (C_1-C_6)-alkoxy, amino, mono-(C_1-C_4)-alkylamino or di-(C_1-C_4)-alkylamino; a (C_6-C_{14})-aryl radical, (C_6-C_{14})-aryl-(C_1-C_4)-alkyl radical or a (C_2-C_{10})-heteroaryl or (C_2-C_{10})-heteroaryl-(C_1-C_4)-alkyl radical which contains one or more heteroatoms selected from the group consisting of N, O and S, where the (C_1-C_4)-alkyl radical can be unsubstituted or mono-or polysubstituted by identical or different substituents from the group consisting of (C_1-C_6)-alkyl, halogen and oxo (=O) and where the (C_6-C_{14})-aryl or (C_2-C_{10})-heteroaryl radical can be unsubstituted or mono- or polysubstituted by identical or different substituents from the group consisting of straight-chain or branched (C_1-C_8)-alkyl, (C_3-C_7)-cycloalkyl, halogen, cyano, (C_1-C_6)-